

applying a bond coating to the substrate, the bond coating comprising at least one organic adhesion-conferring polymer, wherein the at least one adhesion-conferring polymer comprises at least one polybismaleimide selected from the group consisting of: (i) a homopolymer comprising a bismaleimide, (ii) a homopolymer comprising a maleimide-terminated oligomer, (iii) a homopolymer comprising a maleimide-terminated polymer, (iv) a copolymer comprising a bismaleimide, (v) a copolymer comprising a maleimide-terminated oligomer, (vi) a copolymer comprising a maleimide-terminated polymer, and (vii) a copolymer of an organic compound having a terminal functional group which can be polymerized with a maleimide residue, but which does not undergo a Diels-Alder reaction, and at least one of compounds (i)-(vi); wherein the coating is applied from an aqueous solution, an organic solvent solution, a dispersion or an emulsion; and

subsequently stabilizing the bond coating on the substrate surface.

21. (Twice Amended) A method for corrosion-proofing a metal substrate, comprising:

- cleaning and de-greasing a substrate;
- applying a bond coating to the substrate, the bond coating comprising at least one organic adhesion-conferring polymer, wherein the at least one adhesion-conferring polymer comprises at least one polybismaleimide selected from the group consisting of: (i) a homopolymer comprising a bismaleimide, (ii) a homopolymer comprising a maleimide-terminated oligomer, (iii) a homopolymer comprising a maleimide-terminated polymer, (iv) a copolymer comprising a bismaleimide, (v) a copolymer comprising a maleimide-terminated oligomer, (vi) a copolymer comprising a maleimide-terminated polymer, and (vii) a copolymer of an organic compound having a terminal functional group which can be polymerized with a

Coat
Substrat
Coat
maleimide residue, but which does not undergo a Diels-Alder reaction, and at least one of compounds (i)-(vi);

wherein the coating is applied from an aqueous solution, an organic solvent solution, a dispersion or an emulsion;

(c) stabilizing the bond coating on the substrate surface by heat or irradiation; and

(d) applying at least one paint coating on the substrate.

(Applicant's Remarks are set forth hereinbelow, starting on the following page.)